| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| **Week 1** | | | | | |
| Readings - Self Learning | | | **Arioneo textbooks:**<br>- Heart rate and performance<br>- Locomoton and acceleration | | |
| Video Class | **Welcoming session**<br>- Presentation of everyone<br>- Presentation of the program<br>- Presentation of the elearning platform<br>- Presentation of Assignments<br>- Group Q&A shared sheet | | | | |
| E-learning : on-demand virtual class | | **Speed - Cardiorespiratory system - Locomotion: the basics**<br>- General anatomy<br>- Gait mechanism<br>- Performance indicators<br>- Key figures | **How to read a data report? Diving into parameters**<br>- Interpreting the graphs<br>- Recovery parameters<br>- Workout intensity & effort zones<br>- Locomotor profiles & acceleration strategies<br>- Comparison tool<br>- Different types of parameters and their calculations | | **Equine physiology applied to athlete horse training**<br>- Cardiovascular & respiratory system and how they interact<br>- Energy production mechanism |
| Quiz | | Quiz | Quiz | | Quiz |
| Assignments | | | | Choose the right parameters for each trainer type considering their constraints | |

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| **Week 2** | | | | | |
| Readings - Self Learning | | | **Arioneo textbooks:**<br>- Speed analysis in training and racing<br><br>**Videos:**<br>- Data & future performers<br>- How to set up a data science unit in a horse racing stable | | |
| Video Class | | | **Longitudinal analysis**<br>- What to look for when building a report for a horse?<br>- How to leverage a database<br><br>**Guest speakers** | | |
| E-learning : on-demand virtual class | **Data analysis in practice: How to write the perfect Flash Analysis?**<br>- What parameters to highlight for an efficient analysis<br>- How to adapt your analysis to your audience<br>- Synthesizing the data | **(Optional) Excel for beginners** | | **Excel and mathematics basics**<br>- The mathematics behind Arioneo parameters (recovery models, stride calculations, automatic adjustments)<br>- Building an Excel dashboard for visual and automated reports<br>- Big data analysis | **Horse anatomy and the effect of training on the horse's tissues**<br>- Type of muscles<br>- How to develop specific muscle fibers for a racehorse<br>- Improving metabolism with training |
| Quiz | Quiz | | | Quiz | Quiz |
| Assignments | | 5 Flash Analysis | | | |

|  |  | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|---|
| **Week 3** | Readings - Self Learning |  |  | **Arioneo textbooks:**<br>- Pathology analysis<br><br>**Videos:**<br>- Understanding and investigating a poor performance<br>- Horse injuries, how do they occur?<br>- How to avoid horse injuries? |  |  |
|  | Video Class |  | **Advanced sports science**:<br>- Identifying track preference<br>- V200 and V4 calculations<br>- Future developments<br><br>**Guest speakers** |  |  |  |
|  | E-learning : on-demand virtual class | **Common pathologies of the athlete horse and how to detect them in the data**<br>- The most common pathologies of the athlete horse<br>- Using data to prevent injuries |  |  | **Training for performance - Theory vs Reality**<br>- Best theoretical training plans (managing workload, effort tests)<br>- Why is it not always suited and how to best adapt | **Everything we cannot control, why horse data science will never be a predictive science**<br>- External parameters impacting horse training<br>- How to integrate them into your analysis<br>- Communicating uncertainty with a racing team |
|  | Quiz | Quiz |  |  | Quiz | Quiz |
|  | Assignments |  |  | Make a presentation for a horse longitudinal followup |  | Bonus: Additional practical case |
| **Week 4** | Readings - Self Learning |  |  | **Arioneo textbooks:**<br>Communicating in the racehorse industry<br><br>**Videos:**<br>How do horses create energy?<br>How to get the most of each horse? |  |  |
|  | Video Class |  |  | **Tutoring Live Class:** optional Live session to come back on previous assignments and clarify some topics.<br>Brief assignments W4 |  | **Tutoring & Assignment presentation "My role in equine performance innovation" and goodbye session** |
|  | E-learning : on-demand virtual class |  | **The ECG during effort: why looking at it and basic interpretation pre-vet exam**<br>- ECG basic knowledge<br>- Alert signs of cardiac pathologies<br>- Arrhythmias, signal correction and noice detection |  | **How to embark a racing team on a data journey?**<br>- Developing data-driven and individualized training plans<br>- Getting accomplices on the field and training them<br>- Adapting your communication and analysis formats |  |
|  | Quiz |  | Quiz |  | Quiz | Survey |
|  | Assignments | Build your ideal monthly dashboard for performance and health monitoring of a stable on Excel |  |  |  |  |